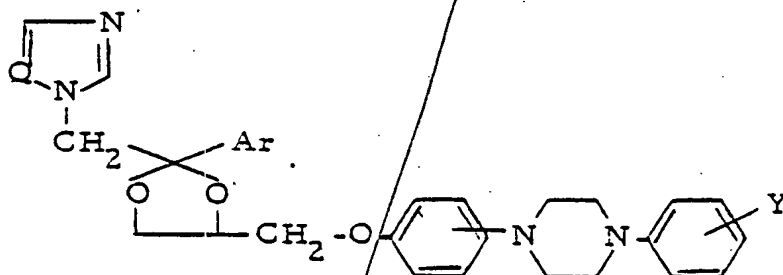


1. A chemical compound selected from the group consisting of an azole derivative having the formula:



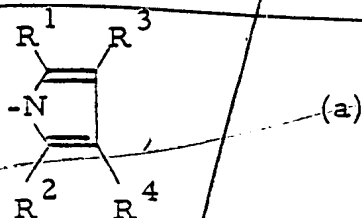
- and the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof, wherein:

Q is a member selected from the group consisting of CH and N;

Ar is a member selected from the group consisting of phenyl, thienyl, halothienyl and substituted phenyl, said substituted phenyl having from 1 to 3 substituents each independently selected from the group consisting of halo, lower alkyl, lower alkyloxy and trifluoromethyl; and

the radical Y is a member selected from the group consisting of

a 1H-pyrrol-1-yl radical of the formula



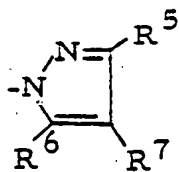
wherein R^1 , R^2 , R^3 and R^4 are each independently selected from the group consisting of hydrogen, lower alkyl, aryl and aryl lower alkyl;

Sub
B1

69

16

a 1H-pyrazol-1-yl radical of the formula



(b)

17

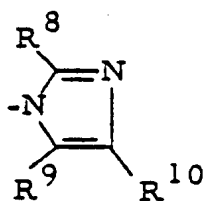
wherein R^5 , R^6 and R^7 are each independently selected from the group consisting of hydrogen, lower alkyl, aryl and aryl lower alkyl;

18

19

20

a 1H-imidazol-1-yl radical of the formula



(c)

21

wherein R^8 is selected from the group consisting of hydrogen, lower alkyl, mercapto, lower alkylthio and aryl-lower alkylthio, and R^9 and R^{10} are each independently selected from the group consisting of hydrogen, lower alkyl, aryl and aryl lower alkyl;

22

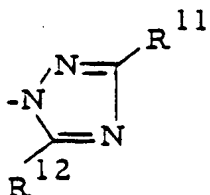
23

24

25

26

a 1H-1,2,4-triazol-1-yl radical of the formula



(d)

27

wherein either of R^{11} and R^{12} is selected from the group consisting of hydrogen, hydroxy, mercapto, lower alkylthio and aryl-lower alkylthio, the remaining being selected from the group consisting of hydrogen, lower alkyl and aryl-lower alkyl;

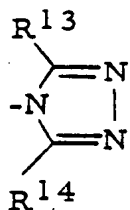
28

29

30

31

a 4H-1,2,4-triazol-4-yl radical of the formula



(e)

32

wherein R^{13} is selected from the group consisting of

33

hydrogen, mercapto, hydroxy, lower alkylthio and aryl

34

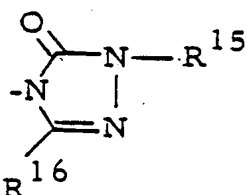
lower alkylthio, and R^{14} is selected from the group consist-

35

ing of hydrogen, lower alkyl, aryl and aryl lower alkyl;

36

a 2,3-dihydro-4H-1,2,4-triazol-4-yl radical of the formula



(f)

37

wherein R^{15} is selected from the group consisting of lower

38

alkyl and aryl lower alkyl and R^{16} is selected from the

39

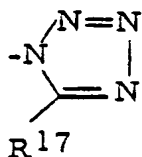
group consisting of hydrogen, lower alkyl, and aryl lower

40

alkyl;

41

a 1H-1,2,3,4-tetrazol-1-yl radical of the formula



(g)

42

wherein R^{17} is selected from the group consisting of

43

hydrogen, mercapto, lower alkyl, aryl and aryl lower

44

alkyl;

45

wherein said aryl as used in the foregoing definition is selected

46

from the group consisting of phenyl and substituted phenyl,

47 said substituted phenyl having from 1 to 3 substituents each indepen-
 48 dently selected from the group consisting of halo, lower alkyl, lower
 49 alkyloxy and trifluoromethyl.

1 2. A chemical compound selected from the group consisting
 2 of cis-1-{4-[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-
 3 1,3-dioxolan-4-ylmethoxy]phenyl}-4-[4-(1H-imidazol-1-yl)phenyl]-
 4 piperazine and the pharmaceutically acceptable acid addition salts
 5 and stereochemically isomeric forms thereof.

1 3. A chemical compound selected from the group consisting
 2 of cis-1-{4-[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-
 3 1,3-dioxolan-4-ylmethoxy]phenyl}-4-[4-(1H-1,2,4-triazol-1-yl)-
 4 phenyl] piperazine and the pharmaceutically acceptable acid addition
 5 salts and stereochemically isomeric forms thereof.

55, 55, 56
 1 2 4. A chemical compound selected from the group consisting
 2 of cis-4-{4-[4-{4-[2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl-
 3 methyl)-1,3-dioxolan-4-ylmethoxy]phenyl}-1-piperazinyl]phenyl}-
 4 2,4-dihydro-2,5-dimethyl-3H-1,2,4-triazol-3-one and the pharma-
 5 ceutically acceptable acid addition salts and stereochemically isome-
 6 ric forms thereof.

55, 55, 56
 9-54
 1 3 5. A chemical compound selected from the group consisting
 2 of cis-4-{4-[4-{4-[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-
 3 ylmethyl)-1,3-dioxolan-4-ylmethoxy]phenyl}-1-piperazinyl]phenyl}-
 4 2,4-dihydro-2,5-dimethyl-3H-1,2,4-triazol-3-one monohydrate and
 5 the pharmaceutically acceptable acid addition salts and stereo-
 6 chemically isomeric forms thereof.

MP
 1 6. A chemical compound selected from the group consisting
 2 of cis-1-{4-[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-
 3 1,3-dioxolan-4-ylmethoxy]phenyl}-4-[4-(1H-imidazol-1-yl)phenyl]-

7h

4 piperazine and the pharmaceutically acceptable acid addition salts
5 and stereochemically isomeric forms thereof.

NC
HP
1 7. A chemical compound selected from the group consisting
2 of cis-1- {4- $\sqrt{2}$ -(2, 4-dichlorophenyl)-2-(1H-1, 2, 4-triazol-1-yl-
3 methyl)-1, 3-dioxolan-4-ylmethoxy $\sqrt{7}$ phenyl }-4- {4- $\sqrt{3}$ -(methylthio)-
4 1H-1, 2, 4-triazol-1-yl $\sqrt{7}$ phenyl } piperazine and the pharmaceutically
5 acceptable acid addition salts and stereochemically isomeric
6 forms thereof.

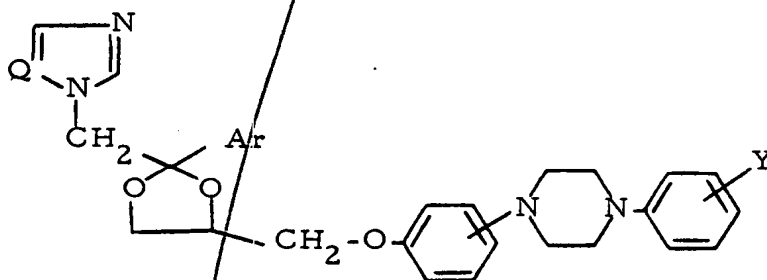
55, 55, 55
9563
4
1 4. A chemical compound selected from the group consisting
2 of cis-4- { 4- $\sqrt{4}$ - { 4- $\sqrt{2}$ -(2, 4-dichlorophenyl)-2-(1H-1, 2, 4-triazol-
3 1-ylmethyl)-1, 3-dioxolan-4-ylmethoxy $\sqrt{7}$ phenyl }-1-piperazinyl $\sqrt{7}$ -
4 phenyl }-2-ethyl-2, 4-dihydro-5-methyl-3H-1, 2, 4-triazol-3-one
5 and the pharmaceutically acceptable acid addition salts and stereo-
6 chemically isomeric forms thereof.

55, 55, 55
9563
364
1 5. A chemical compound selected from the group consisting
2 of cis-4- { 4- $\sqrt{4}$ - { 4- $\sqrt{2}$ -(2, 4-dichlorophenyl)-2-(1H-1, 2, 4-triazol-
3 1-ylmethyl)-1, 3-dioxolan-4-ylmethoxy $\sqrt{7}$ phenyl }-1-piperazinyl $\sqrt{7}$ -
4 phenyl }-2, 4-dihydro-5-methyl-2-propyl-3H-1, 2, 4-triazol-3-
5 one monohydrate and the pharmaceutically acceptable acid addition
6 salts and stereochemically isomeric forms thereof.

55, 55, 55
9563
364
1 6. A chemical compound selected from the group consist-
2 ing of cis-4- { 4- $\sqrt{4}$ - { 4- $\sqrt{2}$ -(2, 4-dichlorophenyl)-2-(1H-1, 2, 4-
3 triazol-1-ylmethyl)-1, 3-dioxolan-4-ylmethoxy $\sqrt{7}$ phenyl }-1-pipera-
4 zinyl $\sqrt{7}$ phenyl }-2-ethyl-2, 4-dihydro-3H-1, 2, 4-triazol-3-one and
5 the pharmaceutically acceptable acid addition salts and stereo-
6 chemically isomeric forms thereof.

73

11. A composition for combatting the growth of a microorganism selected from the group consisting of fungus and bacterium comprising an inert carrier material and as an active ingredient an effective antifungal or antibacterial amount of a compound selected from the group consisting of an azole derivative having the formula



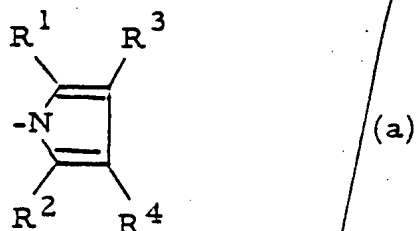
and the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof, wherein:

Q is a member selected from the group consisting of CH and N;

Ar is a member selected from the group consisting of phenyl, thienyl, halothienyl and substituted phenyl, said substituted phenyl having from 1 to 3 substituents each independently selected from the group consisting of halo, lower alkyl, lower alkyloxy and trifluoromethyl; and

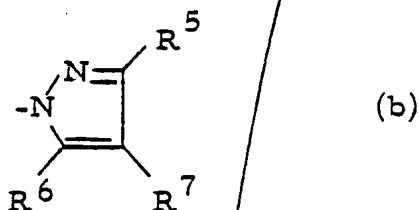
the radical Y is a member selected from the group consisting of

15 a 1H-pyrrol-1-yl radical of the formula



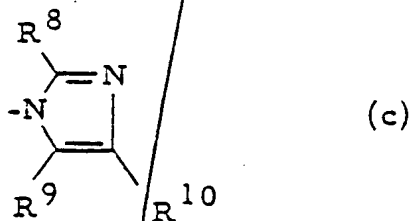
16 wherein R^1 , R^2 , R^3 and R^4 are each independently selected
 17 from the group consisting of hydrogen, lower alkyl, aryl
 18 and aryl lower alkyl;

19 a 1H-pyrazol-1-yl radical of the formula



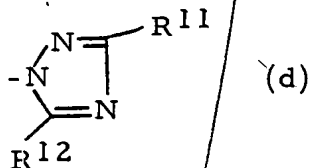
20 wherein R^5 , R^6 and R^7 are each independently selected from
 21 the group consisting of hydrogen, lower alkyl, aryl and
 22 aryl lower alkyl;

23 a 1H-imidazol-1-yl radical of the formula



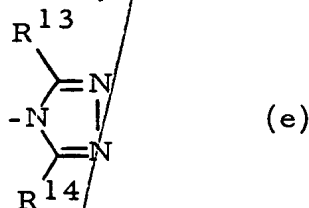
24 wherein R^8 is selected from the group consisting of hydro-
 25 gen, mercapto, lower alkylthio and aryl lower alkylthio,
 26 and R^9 and R^{10} are each independently selected from the
 27 group consisting of hydrogen, lower alkyl, aryl and
 28 aryl lower alkyl;

29 a 1H-1,2,4-triazol-1-yl radical of the formula



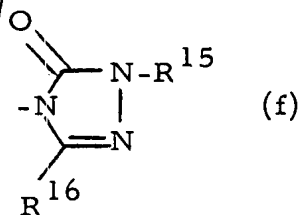
30 wherein either of R^{11} and R^{12} is selected from the group
 31 consisting of hydrogen, hydroxy, mercapto, lower alkylthio
 32 and aryl-lower alkylthio, the remaining being selected
 33 from the group consisting of hydrogen, lower alkyl and
 34 aryl-lower alkyl;

35 a 4H-1,2,4-triazol-4-yl radical of the formula



36 wherein R^{13} is selected from the group consisting of
 37 hydrogen, mercapto, hydroxy, lower alkylthio and aryl
 38 lower alkylthio, and R^{14} is selected from the group consis-
 39 ting of hydrogen, lower alkyl, aryl and arylllower alkyl;

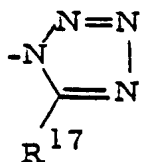
40 a 2,3-dihydro-4H-1,2,4-triazol-4-yl radical of the formula



41 wherein R^{15} is selected from the group consisting of lower
 42 alkyl and aryl lower alkyl and R^{16} is selected from the
 43 group consisting of hydrogen, lower alkyl, and aryl lower
 44 alkyl;

45

a 1H-1,2,3,4-tetrazol-1-yl radical of the formula



(g)

46

wherein R¹⁷ is selected from the group consisting of hydrogen, mercapto, lower alkyl, aryl and aryl lower alkyl;

47

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51

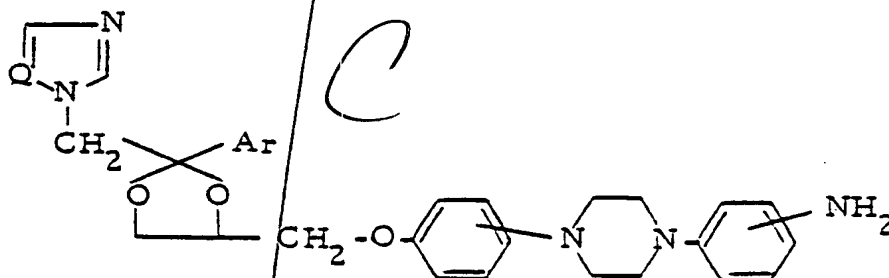
52

53

wherein said aryl as used in the foregoing definition is selected from the group consisting of phenyl and substituted phenyl, said substituted phenyl having from 1 to 3 substituents each independently selected from the group consisting of halo, lower alkyl, lower alkyloxy and trifluoromethyl.

1

12. A chemical compound having the formula



2

3

and the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof, wherein:

4

Q is a member selected from the group consisting of CH and N;

5

6

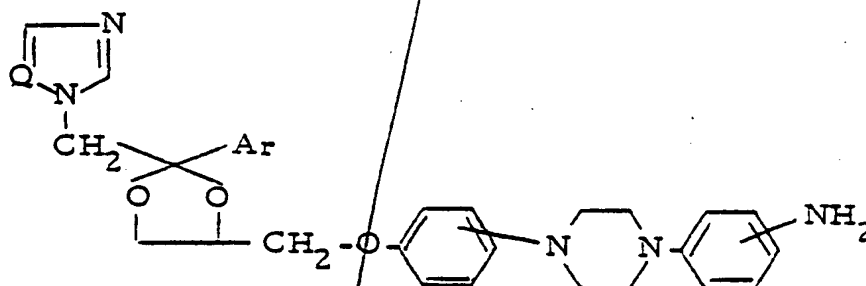
7

8

9

Ar is a member selected from the group consisting of phenyl, thienyl, halothienyl and substituted phenyl, said substituted phenyl having from 1 to 3 substituents each independently selected from the group consisting of halo, lower alkyl, lower alkyloxy and trifluoromethyl.

13. A composition for combatting the growth of a micro-organism selected from the group consisting of fungus and bacterium comprising an inert carrier material and as an active ingredient an effective antifungal or antibacterial amount of a compound selected from the group consisting of an azole derivative having the formula



and the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof, wherein:

Q is a member selected from the group consisting of CH and N;

Ar is a member selected from the group consisting of phenyl, thienyl, halothienyl and substituted phenyl, said substituted phenyl having from 1 to 3 substituents each independently selected from the group consisting of halo, lower alkyl, lower alkyloxy and trifluoromethyl.

14. A chemical compound selected from the group consisting of cis-1-{4-[2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-ylmethoxy]phenyl}-4-[4-(1H-tetrazol-1-yl)phenyl]-piperazine and the pharmaceutically acceptable acid addition salts and stereochemically isomeric forms thereof.

add
Q'